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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,188

07/23/2007

Renaud Moliton

979-254

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10/06/2008

SOFER & HAROUN LLP.

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EXAMINER

RADKOWSKI, PETER

ART UNIT

PAPER NUMBER

2883

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/593,188	<b>Applicant(s)</b> MOLITON, RENAUD	
	<b>Examiner</b> PETER RADKOWSKI	<b>Art Unit</b> 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 6/23/2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/15/2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

**Detailed Office Action**

**Response to Arguments**

1. Applicant's arguments with respect to Claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

**Claim Rejections - 35 USC § 103**

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 1-10**

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being obvious over Fischer et al. (6,349,004) in view of Geist (2003/0030597) and further in view of Kiernan et al. (2005/0093757)..

Art Unit: 2883

From hereinafter, Fischer will stand-in for Fischer et al. and Kiernan will stand-in for Kiernan et al.

Regarding Claims 1-10, Fischer teaches a head-mounted electronic display comprising a device with the elements and functionality commonly associated with the light-funneling elements and functionality of a light pipe device, the light pipe device comprising an entry surface [25], an aspherical exit surface [26] defining an inflection point, and kinoform-type diffractive components. (See Fischer, Abstract, col. 2, ll. 25-41; col. 7, ll. 60-67; and col. 8, ll. 1-18)

Further regarding Claims 1-10, Fischer does not explicitly teach a light pipe configured to transmit virtual images to be experienced by the eye of a user wearing spectacles upon whose frame the electronic display is mounted. However, Geist teaches an electronic display arrangement comprising a conventional spectacle frame [15], an inclined reflection wall [68]; and negative diopter optical components which determine optical axis [15] and virtual image plane [10]. (See Geist, figs. 1, 5, and 6; and par. [0034], ll. 1-9 and par. [0059], l. 1 - par. [0061], l. 17) Since Fischer and Geist both teach head-mounted optical display devices, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fischer to have optic configuration taught by Geist because the resultant configuration would provide the user with simultaneous views of a virtual image and a forward field of view. (See Geist, Abstract, ll. 1-7) One would have been motivated to make this modification because the ability to integrate virtual images with forward-looking vision increase the amount of visual information instantly available to users of head-mounted displays.

Further regarding Claims 1-10, Fischer in view of Geist does not explicitly a diffractive component formed directly on the entry surface of the light pipe relay. However, Kiernan teaches a diffractive lens [32] coupled to the surface of light guide [42]. (See Kiernan, fig. 9, par. [0036]) Since Fischer, Geist, and Kiernan all teach light pipes propagating optical signals, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fischer in view of Geist to have the diffractive lens at the surface of the light pipe taught by Kiernan because the resultant configuration can alter the focal point of light entering the light pipe. (See Kiernan, par. [0032]) One would have been motivated to make this modification

Art Unit: 2883

because altering the focus of light entering a light pipe would enhance the tuning capabilities of the optical device comprising the light pipe.

Art Unit: 2883

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please refer to Form 892 for additional references cited but not used in this office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Radkowski whose telephone number is (571) 270-1613. The examiner can normally be reached on Monday - Thursday, 8 AM to 5 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font, can be reached on (517) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, See <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call (800) 786-9199 (IN USA OR CANADA) or (571) 272-1000.

/Peter Radkowski/  
Patent Examiner, Art Unit 2883

/Frank G Font/  
Supervisory Patent Examiner, Art Unit 2883